

WHAT IS CLAIMED IS:

- 5 *sub* 1. A particle comprising a triazole fungicide in a polymer matrix.
- 10 2. The particle of claim 1 wherein the triazole fungicide comprises a compound selected from the group consisting of bitertanol, bromuconazole, cyproconazole, difenoconazole, epoxiconazole, fenbuconazole, fluquinconazole, flusilazole, flutriafol, hexaconazole, imibenconazole, metconazole, myclobutanil, penconazole, propiconazole, tebuconazole, tetraconazole, triadimefon, triadimenol, and triticonazole.
- 15 3. The particle of claim 2 wherein the triazole fungicide comprises a compound selected from the group consisting of cyproconazole, epoxiconazole, tebuconazole, triadimefon, and triadimenol.
- 20 4. The particle of claim 3 wherein the triazole fungicide comprises cyproconazole.
- 25 5. The particle of claim 3 wherein the triazole fungicide comprises tebuconazole.
6. The particle of claim 2 wherein the triazole fungicide comprises epoxiconazole.

7. The particle of claim 1 wherein the polymer matrix comprises a polymer selected from the group consisting of poly(methylmethacrylate), poly(lactic acid), a poly(lactic acid-glycolic acid) copolymer, cellulose acetate butyrate, a poly(styrene), hydroxybutyric acid-hydroxyvaleric acid copolymer, a styrene maleic anhydride copolymer, poly(methylvinyl ether-maleic acid), poly(caprolactone), poly(n-amylmethacrylate), wood rosin, a polyanhydride, a polyorthoester, a poly(cyanoacrylate), poly(dioxanone), ethyl cellulose, a ethyl vinyl acetate polymer, poly(ethylene glycol), poly(vinylpyrrolidone), an acetylated monoglyceride, an acetylated diglyceride, an acetylated triglyceride, poly(phosphazene), chlorinated natural rubber, a vinyl polymer, polyvinyl chloride, a hydroxyalkylcellulose, polybutadiene, polyurethane, a vinylidene chloride polymer, a styrene-butadiene copolymer, a styrene-acrylic copolymer, an alkylvinylether polymer, a cellulose acetate phthalate, an ethyl vinyl phthalate, cellulose triacetate, a polyanhydride, a polyglutamate, a polyhydroxy butyrate, polyvinyl acetate, a vinyl acetate-ethylene copolymer, a vinyl acetate-vinylpyrrolidone copolymer, an acrylic polymer, an alkyl acrylate polymer, an aryl acrylate polymer, an aryl methacrylate polymer, a poly(caprolactam), an epoxy resin, a polyamine epoxy resin, a polyamide, a polyvinyl alcohol polymer, a polyalkyd resin, a phenolic

resin, an abietic acid resin, a silicone, a polyalkylene oxide, and a polyester.

8. The particle of claim 1 further comprising a plasticizer.

9. The particle of claim 1 wherein the mean diameter of said particle is in the range of from about 0.1 microns to about 200 microns.

10. The particle of claim 9 wherein the mean diameter of said particle is in the range of from about 0.2 microns to about 100 microns.

11. The particle of claim 10 wherein the mean diameter of said particle is in the range of from about 0.5 microns to about 50 microns.

12. A fungicidal composition comprising:

- (a) a particle comprising a triazole fungicide in a polymer matrix, and
(b) an agricultural adjuvant.

13. The fungicidal composition of claim 12 wherein the fungicidal composition is in the form of a liquid suspension.

14. The fungicidal composition of claim 12 wherein the fungicidal composition is in the form of a wettable powder.

15. The fungicidal composition of claim 12 wherein the fungicidal composition is in the form of a granule.
- 5 16. The fungicidal composition of claim 15 wherein the granule is a water-dispersible granule.
17. The fungicidal composition of claim 12 wherein the agricultural adjuvant comprises a dispersant.
- 10 18. The fungicidal composition of claim 12 wherein the agricultural adjuvant comprises a diluent.
19. A method of producing a particle wherein the particle comprises a triazole fungicide in a polymer matrix, the method comprising:
- 15 (a) providing a hydrophobic solution comprising a triazole fungicide, a polymer, and a solvent;
- (b) mixing the hydrophobic solution and an aqueous medium to produce a dispersion of droplets of the hydrophobic solution in the aqueous medium; and
- 20 (c) evaporating the solvent from the dispersion to produce a particle comprising a triazole fungicide in a polymer matrix.
- 25 20. The method of claim 19 wherein the triazole fungicide comprises a compound selected from the group consisting of bitertanol, bromuconazole, cyproconazole, difenoconazole, epoxiconazole, fenbuconazole, fluquinconazole, flusilazole,
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flutriafof, hexaconazole, imibenconazole,
metconazole, myclobutanil, penconazole,
propiconazole, tebuconazole, tetraconazole,
triadimefon, triadimenol, and triticonazole.

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21. The particle of claim 20 wherein the triazole
fungicide comprises a compound selected from the
group consisting of cyproconazole, epoxiconazole,
tebuconazole, triadimefon, and triadimenol.

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22. The method of claim 20 wherein the triazole
fungicide comprises cyproconazole.

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23. The method of claim 20 wherein the triazole
fungicide comprises tebuconazole.

24. The method of claim 20 wherein the triazole
fungicide comprises epoxiconazole.

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25. The method of claim 20 wherein the triazole
fungicide comprises triadimenol.

26. The method of claim 20 wherein the triazole
fungicide comprises triadimefon.

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27. The method of claim 19 wherein the hydrophobic
solution further comprises a dispersing agent.

28. The method of claim 19 wherein the aqueous medium
comprises a dispersing agent.

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29. The method of claim 19 wherein the solvent is a substantially hydrophobic solvent.

30. The method of claim 29 wherein the solvent comprises a compound selected from the group consisting of halogenated hydrocarbons, aromatic compounds, hydrocarbons, ethers, and esters.

31. The method of claim 30 wherein the solvent comprises a compound selected from the group consisting of ethyl acetate, chloroform, carbon tetrachloride, acetonitrile, diethyl ether, dimethyl ether, acetone, methylethylketone, pentane, hexane, hexanes, heptane, dioxane, ethanol, methanol, pyridine, propanol, 2-propanol, butanol, 2-butanol, t-butyl alcohol, isobutyl alcohol, perchloroethylene, tetrachloroethane, o-xylene, m-xylene, p-xylene, toluene, benzene, mesitylene, chlorobenzene, o-dichlorobenzene, m-dichlorobenzene, and p-dichlorobenzene.

32. The method of claim 31 wherein the solvent comprises methylene chloride.

33. The method of claim 19 wherein step (c) comprises applying a source of vacuum to the dispersion.

34. The method of claim 19 wherein step (c) comprises applying heat to the dispersion.

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42. The method of claim 39 wherein the triazole fungicide comprises epoxiconazole.
43. The method of claim 39 wherein the triazole fungicide comprises triadimenol.
44. The method of claim 39 wherein the triazole fungicide comprises triadimefon.
45. The method of claim 36 wherein the polymer matrix comprises a polymer selected from the group consisting of poly(methylmethacrylate), poly(lactic acid), a poly(lactic acid-glycolic acid) copolymer, cellulose acetate butyrate, a poly(styrene), hydroxybutyric acid-hydroxyvaleric acid copolymer, a styrene maleic anhydride copolymer, poly(methylvinyl ether-maleic acid), poly(caprolactone), poly(n-amylmethacrylate), wood rosin, a polyanhydride, a polyorthoester, a poly(cyanoacrylate), poly(dioxanone), ethyl cellulose, a ethyl vinyl acetate polymer, poly(ethylene glycol), poly(vinylpyrrolidone), an acetylated monoglyceride, an acetylated diglyceride, an acetylated triglyceride, poly(phosphazene), chlorinated natural rubber, a vinyl polymer, polyvinyl chloride, a hydroxyalkylcellulose, polybutadiene, polyurethane, a vinylidene chloride polymer, a styrene-butadiene copolymer, a styrene-acrylic copolymer, an alkylvinylether polymer, a cellulose

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